Amendments to the Claims

Claims 1-36 (cancelled)

37. (currently amended) An article, said article comprising:

a) a substrate; [and]

b) at least one barrier layer, said at least one barrier layer comprising at least one of a metal oxide, a metal nitride, a metal carbide, and combinations thereof, wherein each of said metal nitride, said metal carbide, and said metal oxide contains at least one of silicon, aluminum, zinc, indium, tin, a transition metal, and combinations thereof, and wherein said barrier layer is resistant to transmission of moisture and oxygen therethrough and has a water vapor transmission rate (WVTR) at 25°C and 100% relative humidity of less than about 2 g/m^2-day and an oxygen transmission rate (OTR) at 25°C and 100% oxygen concentration of less than about 2 cc/m^2-day[.]; and

c) at least one layer, wherein said at least one layer is disposed adjacent to said barrier layer, said at least one layer comprising an ultraviolet radiation-absorbing organic material, said ultraviolet radiation-absorbing organic material being selected from the group consisting of polymeric ultraviolet radiation-absorbing organic materials, molecular ultraviolet radiation-absorbing organic materials, and combinations thereof.

38. (cancelled)

39. (currently amended) The article according to Claim [38] 37, wherein said at least one barrier layer is interposed between said at least one layer and said substrate.

40. (currently amended) The article according to Claim [38] 37, wherein said at least one layer is interposed between said at least one barrier layer and said substrate.

41. (original) The article according to Claim 40, wherein said at least one layer comprises an adhesion layer for promoting adhesion of said at least one barrier layer to said substrate.

42. (original) The article according to Claim 41, wherein said adhesion layer comprises at least one of: a metal in elemental form, a carbide of said metal, an oxycarbide of said metal, an oxide of said metal, and a nitride of said metal, wherein said metal is one of silicon, aluminum, titanium, zirconium, hafnium, tantalum, gallium, germanium, zinc, tin, cadmium, tungsten, molybdenum, chromium, vanadium, and platinum; amorphous carbon; a ceramic material, wherein said ceramic material comprises at least one of glass, silica, alumina, zirconia, boron nitride, boron carbide, and boron carbonitride; a silicone; a siloxane; a polymer; an epoxide; an acrylate; an acrylonitrile; a xylene; a styrene; and combinations thereof.

43. (currently amended) The article according to Claim [38] 37, wherein said at least one layer comprises at least one of an abrasion resistant layer, an ultraviolet radiation-absorbing layer, infrared radiation-reflecting layer, and an electrically conducting layer.

44. (original) The article according to Claim 43, wherein said abrasion resistant layer comprises at least one of: a carbide of a metal, an oxycarbide of said metal, an oxide of said metal, and a nitride of said metal, wherein said metal is one of silicon, aluminum, titanium, zirconium, hafnium, tantalum, gallium, germanium, zinc, tin, cadmium, tungsten, molybdenum, chromium, vanadium, and platinum; amorphous carbon; a ceramic material, wherein said ceramic material comprises at least one of glass, silica, alumina, zirconia, boron nitride, boron carbide, and boron carbonitride; a silicone; a siloxane; polymerized monomers; polymerized oligomers; an organic polymer; an inorganic-organic polymer; an epoxide; an acrylate; an acrylonitrile; a xylene; a styrene; and combinations thereof.

45. (original) The article according to Claim 43, wherein said ultraviolet radiation-absorbing layer comprises at least one of titanium oxide, zinc oxide, cerium oxide, a polymer, and combinations thereof.

46. (original) The article according to Claim 43, wherein said infrared radiation-reflecting layer comprises silver, aluminum, indium, tin, indium tin oxide, cadmium stannate, zinc, and combinations thereof.

47. (original) The article according to Claim 43, wherein said electrically conducting layer comprises silver, aluminum, indium, tin, indium tin oxide, cadmium stannate, zinc, and combinations thereof.

48. (original) The article according to Claim 37, wherein said transition metal is titanium.

49. (original) The article according to Claim 48, wherein said barrier layer comprises titanium oxide.

50. (original) The article according to Claim 37, wherein said barrier layer comprises silicon nitride.

51. (original) The article according to Claim 37, wherein said barrier layer has a thickness in a range from about 10 nm to about 10,000 nm.

52. (original) The article according to Claim 51, wherein said barrier layer has a thickness in a range from about 20 nm to about 500 nm.

53. (original) The article according to Claim 37, wherein said barrier layer has a water vapor transmission rate of up to about 0.2 g/m^2-day.

54. (original) The article according to Claim 37, wherein said barrier layer has an oxygen transmission rate at 25°C and 100% oxygen concentration of up to about 0.2 cc/m^2-day.

55. (original) The article according to Claim 37, wherein the article is one of a light emitting diode (LED), a liquid crystal display (LCD), a photovoltaic article, a flat panel display device, an electrochromic article, an organic integrated circuit, and an organic electroluminescent device (OELD).

56. (original) The article according to Claim 37, wherein said barrier layer is deposited on said substrate by: injecting a first reagent into an expanding thermal plasma, said first reagent comprising at least one of silicon, aluminum, zinc, indium, tin, a transition metal, and combinations thereof; injecting a second reagent into said expanding

thermal plasma, the second reagent comprising at least one of oxygen, nitrogen, and ammonia; reacting said first reagent and said second reagent in said expanding thermal plasma to form at least one deposition precursor; and depositing said at least one deposition precursor on said substrate at a rate of at least about 200 nm/min to form said barrier layer on said substrate.

57. (original) The article according to Claim 37, wherein said substrate comprises one of glass, a polymeric material, silicon, a metallic web, and fiberglass.

58. (original) The article according to Claim 57, wherein said polymeric material comprises one of a polycarbonate, a polyethylene terephtalene, a polyethylene naphthalene, a polyimide, a polyethersulfone, a polyacrylate, a polynorbornene, and combinations thereof.

59. (original) The article of Claim 57, wherein said metallic web comprises one of aluminum and steel.

Claims 60-103 (cancelled)